

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 April 2004 (29.04.2004)

PCT

(10) International Publication Number
WO 2004/036204 A2

(51) International Patent Classification⁷: **G01N 27/447**

(21) International Application Number:
PCT/DK2003/000690

(22) International Filing Date: 13 October 2003 (13.10.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PA 2002 01565 13 October 2002 (13.10.2002) DK

(71) Applicant (for all designated States except US): **PI-COSEP A/S** [DK/DK]; Forskerparken 10, DK-5230 Odense M (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **RUBIN, Adam** [DK/DK]; Kanonvej 60, DK-2730 Herlev (DK). **FALTUM, Carsten** [DK/DK]; Birkevej 1, DK-3480 Fredensborg (DK).

(74) Agent: **NKT RESEARCH & INNOVATION A/S**; Group IP, Blokken 84, DK-3460 Birkerød (DK).

(81) Designated States (*national*): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A MICROFLUID BIOMOLECULE SEPARATION SYSTEM

(57) **Abstract.** The invention relates to a micro fluid biomolecule separation system comprising a primary separating path and one or more secondary process paths. The primary separating path being in the form of a separating coating carried on a substrate, wherein the separating coating comprises one or more separating layers, and at least one separating layer consists of or comprises one or more pH active components. The fluid biomolecule separation system comprises means for applying a voltage over the primary separating path. The secondary process paths(s) comprises one or more inlets in liquid communication with the primary separating path. The one or more inlets is placed along or extends along the primary separating path, whereby biomolecules separated along the primary path is capable of being introduced into the secondary process path(s) for being processed further.



WO 2004/036204 A2